



## Introduction to Transportation & Energy Technology

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Credit: 0.50

[Course Preface](#)

Printable Version: [Introduction to Transportation & Energy Technology \(pdf\)](#)

### Course Description

This course introduces the basic operational aspects of power energy and transportation systems using problem solving skills, laboratory environments, and student driven activities.

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### Core Standards of the Course

#### Standard 1

STUDENTS WILL INVESTIGATE CAREER OPPORTUNITIES IN THE TRANSPORTATION AND ENERGY INDUSTRY, WILL EXPLORE THE IMPACT OF TRANSPORTATION AND ENERGY TECHNOLOGY ON OUR SOCIETY, AND WILL BE ABLE TO IDENTIFY A VARIETY OF TRANSPORTATION AND ENERGY TECHNOLOGIES, AND WILL LEARN AND USE SAFETY PRACTICES.

#### Objective 1-1

The students will identify occupations related to the communication industry.

#### Objective 1-2

Student will state the differences between past and present methods of communications.

#### Objective 1-3

Students will identify a variety of systems, methods, and materials used for building communication technology.

#### Objective 1-4

Students will learn and use safe work habits and techniques.

#### Standard 2

STUDENTS WILL IDENTIFY AND UNDERSTAND POWER SYSTEMS TECHNOLOGIES.

#### Objective 2-1

Student will understand the mechanical systems. For example;

- Internal combustion engine
- Electrical Motor
- Wind Power

#### Objective 2-2

Student will understand the electrical systems. For example;

- Power distribution
- Magnetic levitation
- Electrical generation

**Objective 2-3**

Student will understand the fluid systems. For example;

- Pneumatic
- Hydraulic

**Objective 2-4**

Student will understand the alternative systems. For example;

- Biotechnologies
- Geothermal
- Solar
- Chemical

**Standard 3**

IDENTIFY AND UNDERSTAND ENERGY RESOURCES.

**Objective 3-1**

Student will understand renewable and nonrenewable energy resources.

**Objective 3-2**

Student will demonstrate energy conservation practice.

**Standard 4**

DEMONSTRATE AN UNDERSTANDING OF TRANSPORTATION SYSTEMS.

**Objective 4-1**

The student will demonstrate an understanding of transportation in the world of aviation systems.

**Objective 4-2**

The student will demonstrate an understanding of transportation in the world of aerospace systems.

**Objective 4-3**

The student will demonstrate an understanding of transportation in the world of land systems.

**Objective 4-4**

The student will demonstrate an understanding of transportation in the world of marine systems.

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